

or low-temperature-co fired-ceramic; ~~a third resonator located on a third layer of dielectric material or low-temperature-co fired-ceramic coupled to said second resonator and cross coupled to said first resonator~~ a third resonator coupled to said second resonator and cross coupled to said first resonator; an input transmission line connected to said first resonator; an output transmission line connected with said third resonator; and a variable capacitor in at least one of said resonators. The variable capacitor can comprise a substrate having a low dielectric constant with planar surfaces; a tunable dielectric film on said substrate comprising a low loss tunable dielectric material; a metal electrode with predetermined length, width, and gap distance; and a low loss isolation material used to isolate an outer bias metallic contact and a metallic electrode on the tunable dielectric. This allows the center frequency of the filter to be tuned by changing the variable capacitor capacitance by changing the voltage.--

Please amendment paragraph staring on page 4, line 20:

--The present invention further provides a method of using voltage to tune a multilayer filter. This method comprises the steps of providing a first resonator on a first layer of dielectric material or low-temperature-co fired-ceramic; providing a second resonator coupled to said first resonator on a second layer of dielectric material or low-temperature-co fired-ceramic; providing ~~a third resonator located on a third layer of dielectric material or low-temperature-co fired-ceramic coupled to said second resonator and cross coupled to said first resonator~~ a third resonator coupled to said second resonator and cross coupled to said first resonator; inputting a transmission line connected to said first resonator; outputting a transmission line connected with said third resonator; and varying the capacitance in at least one of said resonators. The variable capacitor used in this method can comprise a substrate having a low dielectric constant with planar surfaces; a tunable dielectric film on said substrate comprising a low loss tunable dielectric material; a metal electrode with predetermined length, width, and gap distance; and a low loss isolation material used to isolate an outer bias metallic contact and a metallic electrode

on the tunable dielectric. The center frequency of the filter of the present method therefore can be tuned by changing the variable capacitor capacitance by changing the voltage.—

Please amend the paragraph starting page 5, line 15:

--Another embodiment of the present invention which includes a MEMs varactor provides a voltage-controlled tunable multilayer filter which comprises a first resonator on a first layer of dielectric material or low-temperature-co fired-ceramic; a second resonator coupled to said first resonator on a second layer of dielectric material or low-temperature-co fired-ceramic; ~~a third resonator located on a third layer of dielectric material or low-temperature-co fired-ceramic coupled to said second resonator and cross coupled to said first resonator~~ resonator a third resonator coupled to said second resonator and cross coupled to said first resonator; an input transmission line connected to said first resonator; an output transmission line connected with said third resonator; and a MEMS based varactor in at least one of said resonators. Further, the MEMS varactor can use a parallel plate or interdigital topology.—